2: Underhill E-5 (1931-1935)1939 NU28 Papago NU28

left the inherited field to the others. Ceremonial and secular office were handed down by the father, not to the oldest son but to that one fittest to receive them. "I started teaching my ritual to my oldest son, but it seemed he couldn't learn. Then I tried the second but he was always away, working for the Whites. Now I must get a nephew," (2). The father-in-law of 21 tried teaching the calendar stick to his son, found him a poor memorizer and gave it to his son-in-law. Thus the eldest does not inherit property or office nor does he, apparently have authority. (I. 1. A an oldest son and II 1. 8. A. 2, an oldest daughter, took authority in their groups, but this was rather by virtue of character than seniority.) It is true there is authority in the family but it is exercised by the brothers in a group over the sisters, not by one oldest son.

Seniority would seem to be referable only to sororate and levirate, which dictated the kinship terms and we may question whether its appearance in the myth is not also a heritage from some of the other cultures where the same myth is found and where the older brother may have more importance.

Sibling behavior according to this data matches sibling terminology in those points emphasized by the terms, which are points having to do with marriage. Cousins on both sides of the house are considered equal and are impossible as mates while their age status is important because of junior levirate and sororate. But in daily life there appear two other important factors, not reflected in the terms: sex of the relative which conditions social behavior and geographic situation on which all kin behavior is contingent.

PARENT CLASS. Probably the most intimate relation in Papago life was that between father and son. The father was the head of an economic unit, with his sons as his working staff. He directed their labor and arranged for the sale of the produce. If new equipment was needed for any member of the family out of the common supply, he decided upon it. He was responsible for the behavior of his sons and, long after their marriage, he continued to direct them by moral discourse. He, with the mother, decided upon the marriages and received the brides under his protection. When the sons underwent ceremonial purification it was he, first of all, who should make the payment and receive the consequent blessing. He continued as their protector and advisor until his own death, and began very early to train one of them to carry on any office he might hold or to practice any skill. Hunting or weaving, therefore, ran in special families, where the father passed on his knowledge to his sons.

Although the father was so definitely the head of the family, he ruled, as did the chief, by moral suasion rather than by force. He and

2: Underhill E-5 (1931-1935)1939 NU28 Papago NU28

463 A specialist exercised his craft as his part of the family work and
421 was excused from other labor. He supplied the family with as much
512 of his product as was needed, for use and gifts and the rest he traded
His product might be considered individual property in that no one but he had the right to dispose of it and that payment was made to him personally. But he gave the payment to the family just as the younger members gave their labor and if he gambled his products, he gave the family the winnings. Papago needs were such that the family unit required the full time labor of all its members and few thought of operating independently.

421 The family owned very little permanent property, the food which
592 was obtained and consumed every year, constituting almost its entire capital. Such other goods as they had were managed for the benefit of all by the heads of the two working groups: the patriarch for the men, his wife for the women. The patriarch directed the building of a new house or camp and traded when necessary for house posts or stone for tools. It was he who decided on gifts of agricultural produce or meat though he might consult with his wife. The wife managed the use of household mats, pots and baskets. When more were needed, she either had them made in the household or traded for them with womens' goods. She decided on the distributions of cooked food and the harvest from the womens' food gathering. Relics of this system can still be seen in the careful way in which the modern Papago family often separates "man's money" and "woman's money" the woman paying for household goods with her baskets and the man for his saddle with home made rope.

422 Since Kino's time, the Papago have begun to own cattle, at first
[462] in the lands near Mexico, later in the north. Cattle are in charge of the men, like house building and agriculture and their care is directed by the family head. He usually delegates one of his sons as cowboy, just as in former times, one was the hunter. If there are few cattle, the one cowboy may take charge of the cattle of several related families who in turn give produce to his family but not to him personally unless they are very modern.

Each individual had, as his personal property, the scanty clothes he wore, the tools and weapons used and probably some paint and gambling sticks. The whole equipment could be carried on his back, as a girl's was when she went to her husband's house. But more important was ceremonial property: the shaman's plumes, the animal fetish of the curing singer, the eagle feathers, sea shells or Apache scalp won by the "ripe man". These were the most personal of all property for no one but the owner dared touch them —

2: Underhill E-5 (1931-1935)1939 NU28 Papago NU28

and this girl was dead. The men dragged them out into the rain and the house began to burn. Her relatives buried that girl all alone and no one would go near." (26) 841

"Then there was a girl who was going to build a fire and it seemed that it reached out and took her and burned her up." (26)

"And there was another whose mother was struck by lightning. Because when a woman commits this fault, anyone in her family may be punished. That is why, when the lightning strikes a village, they send for the shaman to see what woman was dangerous. He summons all the girls and looks at his crystals to see whose fault it was. They don't punish that girl. She knows that she has killed her relatives and that is enough." (26)

Women admit that an intrepid woman, if she were particularly busy, might conceal her state for a day or two. "But not more. She would be too much afraid." She might also practise the reverse procedure and keep her husband from going to war by telling him falsely that she was menstruating. An injury like this would be far less likely to be forgiven by a husband than would unfaithfulness.

As a rule, the women found the four days segregation no burden. Rather it was a pleasant chance to sit still and give up the household responsibility. They took their basketry to the hut where all women, except first menstruants, might visit them. The groups gambled, sang and told stories. No man might shout to the menstruant or even look at her from a distance. A tale recounts that once a woman in the segregation hut saw an approaching party of Apaches. She shouted to some men in the fields but they would not turn round nor watch her signals and she dared not approach, so the Apaches attacked the village. Another local tale says that a woman who [578] frequently quarrelled with her husband would on each occasion retire to the hut whence he was powerless to get her back. He had to move the family before she would come out.

The segregation custom is still in use, though not so widely as [177] formerly.

DREAM POWER AND CHOICE OF CAREER

The puberty of the youth was not signalized. Even though he married, he continued in his father's house without much change in status until he achieved some noteworthy deed which stamped him an adult. There was no ceremony or definite crisis. He began to take part in men's affairs; ultimately would be consulted and would speak in the council. 881 884

Papago life admitted of a number of specializations. A man could be a leader or a ceremonial officiant, a planter, hunter, 463 787

2: Underhill E-5 (1931-1935)1939 NU28 Papago NU28

463 787 trader, runner, gambler, shaman or lay curer. For two of these activities, that of the shaman and the lay curer, dream power was essential. For several it was out of the picture. These were the hereditary offices of Keeper of the Meeting and ceremonial officiants where the emphasis was on learning a task from a predecessor. In contrast to the Yuman attitude, proficiency was enough without dream confirmation. Planting, the task of everyone, was outside the need for dream power and was taken care of by standardized magic practices ordained for the whole community. Trading, although it might seem the place where initiative and energy (that is, power) would be called for, is never mentioned.

There remain the activities where chance plays a large part: hunting, racing, gambling and war. Here there were magic group rituals but also the individual could gain much with the aid of a Visitant. The aid was not essential: a crack deer hunter has told me that he never had a dream in his life (22). Certainly the youth who failed to dream did not feel agonized and frustrated. But I [157] relate this fact, not to a lack of desire to dream, but to the fact that the Papago is not avid for power. He has some of the Pueblo abhorrence for the idea of prominence and he feels quite content to be an undistinguished member of "the kin".

787 The subject of dreaming should receive its detailed treatment in connection with the supernatural but no discussion of social or economic life can omit some reference to it. Mention has already been made of the way in which a boy was urged from infancy to invite a supernatural Visitant by the practice of the standard virtues, of which fleetness of foot was the chief. Constant frugality was enjoined but he did not definitely fast and he never implored. The Visitant came unasked. The visitation occurred in natural sleep or during the state of exhaustion after running.

When a boy reached young manhood, there were other avenues of approach to the supernatural. The retreat of the Enemy Slayer after killing has been mentioned, with the fact that this gave power not so much for war as for curing. There were two other activities which were thought to bring their participants into almost as close a connection with dangerous power as enemy slaying. These were the ceremonial fetching of salt from the Gulf of California and the killing of an eagle.

After each of these the neophyte went into a retreat similar to that of the Enemy Slayer, though not quite so rigorous and he was called by the same term, possibly meaning Powerful. During this time he had the dreams that ensured future prowess. A Visitant often sang to him and took him on a journey which might have

on the reservation. Indian residents of Sells on the whole, seem to be well aware of events occurring beyond the borders of the reservation.

Surprisingly, there is no real community organization. This is probably due to the cosmopolitan nature of Sells with residents having moved there from all parts of the reservation. The organizations which do exist revolve around voluntary associations, churches and cliques.

Residents of Sells have garden plots and some are cattle growers, but their main source of income is from salaries and wages, with the majority working for the Bureau of Indian Affairs, the Public Health Service, and the Papago Tribe.

Santa Rosa is not as large as Sells, nor does it have many of its characteristics. There is a community building, a government school, a government health center, a church, and a trading post with gasoline pumps. The community building is used for meetings which are held to plan ceremonies and various village projects. There are also many voluntary associations, all patterned after similar Anglo associations, such as a Woman's Club, an Athletic Club, and a Boy Scout troop.

The Gu Achi District Council meets in the community building and all political activity of the district is centered here. Santa Rosa, however, in spite of progressive tendencies, contains some of the most traditional elements of Papago culture found on the Reservation.

the Papago soon after 1900. Unlike other Arizona tribes, who acquired cattle in significant numbers only after formal programs for cattle raising had been introduced by the Bureau of Indian Affairs, the Papago created their own livestock economy. Gwyneth Harrington provides a very interesting account of the process (Harrington, 1938). The incorporation of cattle raising as a part of Papago native culture, compares with the Navajo sheep raising economy, and accounts for a great deal of the resistance to change on the part of both tribes:

175 233 [114] 175 178 233

> "In the time which elapsed between the abandonment of Father Kino's missions and the founding of the Papago Indian Reservation in 1917, the Papago had plenty of time, about two hundred years in all, to become accustomed to the use of cattle and horses, adjust themselves to the new occupational elements, and assimilate the industry into the family, social, and economic structure of the tribe at their own tempo, without interference.
>
> "The old hunting range became the cattle range of the Papago settlement. Hunting was not entirely abandoned, and still has some place in the Papago economy; but in the southern districts the economic emphasis shifted early to cattle raising. [224]
>
> "The cattle of all the family were herded together, and the enterprise was conducted under the orders of the family head. The family hunters, usually one or two men to a family, gave place to one or more of the younger men appointed by the patriarchal head of the family as cowboys. These men took care of the cattle, while, as often in the case of hunters, the others did their share of the farming, and provided for their other needs in return for the specialized work of hunting or care of cattle.
>
> "Each village chose a local stockman to direct the village round-ups and cattle sales. His work was voluntary, unpaid, and a position of some prestige, almost equal to that of the Hunt Chief, whose position was falling into disuse." [554] [463]

175 planted by Indians ranging from 800 to 1,200. By 1916, with
241 water no longer available from the Santa Cruz River, 1,320
311 acres were irrigated with water from three wells. Indian
[312] farming continued at about this scale until 1953 when the present abandonment of farming by Indians at San Xavier commenced. In 1956, as shown in Table 14, a total of 886
[427] acres lay idle. The answer was a program for leasing San Xavier farm land to non-Indians which commenced in 1957.

241 During 1962 a total of 12 San Xavier Indians were
463 engaged in farming, but mostly in small garden plots. The smallest of these was one half acre in size.

175 Indian farming at Chuichu has had a somewhat
241 different history. Although known to have taken place,
311 pre-Spanish farming in this area has not been specifically
312 reported. The first report on the area is from Clotts (1915), who reported that 188 acres were being irrigated from the Santa Cruz River, but that the building of a canal to Green's Reservoir up stream had cut off a part of the water to Papago fields. Commencing in 1931, deep wells were drilled to supplement and replace the river water and, by 1937, 615 acres were developed for irrigation. In 1955, through the leveling of additional land and the drilling of new wells in an area just east of Chuichu, the Bureau of Indian Affairs made a total of 1,612 acres available to Indians. See Table 14.

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Table 16. The Papago Administrative Population by Sex and Residence, 1959.

Residence	Total	Percent	Male	Female
On Papago Reservations	4,803	49.6%	2,405	2,398
In Non-Reservation Communities	4,864	50.3%	2,369	2,495
Total	9,667		4,774	4,893
Unknown Residence	528	5.18%	271	257
Total Irrespective of Residence	10,195		5,045	5,150

The administrative population is almost equally divided between reservation residence and off reservation residence with 49.7% living on the reservation, and 50.3% off. The 528 Papagos without known residence are not included 128 in these calculations. It is necessary to repeat that we have classified individuals according to "usual" residence and that this designation, in many cases, was a subjective judgement on the part of our informants.

464 171 Manpower Resources. The Papago labor force differs from the non-Indian labor force in two principal respects. The Papagos have a high percentage of individuals who are multi-employed, i.e., their income in any given year is derived from a wide variety of combinations of employment. The other difference is that the work force has a high percentage of seasonal and temporary workers, the majority of whom must be described as "underemployed."

162 463 128 In the tabulations below we have assigned multi-employed individuals to the type of employment in which they earned the largest share of their income during the 12 months period preceding our interviews. Where multi-employment income is about equally divided individuals are designated as having "mixed" 463 162 employment. Most multi-employed individuals are engaged in stock raising and

small scale farming on the reservation, in unskilled agricultural employment off the reservation, and in unskilled non-agricultural work. 163 162

Except for seasonal and temporary agricultural workers off the reservation it was not possible to secure reliable information on whether or not an individual had worked on a temporary or permanent basis. The tables, therefore, obscure the extent of the Papago work force which is temporarily employed or underemployed. Since this is an important matter in any analysis of the Papago labor force, estimates of the numbers of seasonal and temporary workers will be provided after the tables are analyzed. 164 128

We are reproducing below a sample collection of individual employment records to illustrate some of the problems encountered in coding and tabulation. 163 164 [128]

Case No. 1. Male. Born in 1916. Abandoned attempt to farm on reservation some years ago. Had no livestock. Formerly worked at temporary jobs in Tucson but maintained home on the reservation. Has lived in Tucson during the past 12 months and works at temporary labor jobs and as seasonal agricultural worker.

Case No. 2. Male. Born in 1911. Has reservation farm formerly worked by his father. Farm now abandoned but he still runs cattle, about 11 head. Worked for CCC in mid-1930's, later picked cotton, then worked many years in Ajo. In recent years he had a permanent job on farm near Gila Bend. During the past 12 months he has held a permanent farm job near Buckeye: irrigating, picking, chopping, tractor driving.

Case No. 3. Male. Born in 1936. Has no farm land but owns a few head of cattle. For a number of years lived on the reservation and worked as seasonal farm hand off the reservation. Left the reservation in 1956. During the past 12 months he has had permanent job as agricultural laborer around Eloy.

Case No. 4. Male. Born in 1891. Has reservation farm, no cattle. Worked most of the time off the reservation at many jobs and in many places when he was younger. In recent years has left the reservation only to pick cotton. During past 12 months has helped with work on family farm, spent a short time picking cotton off the reservation. County provides old age assistance.

Case No. 5. Male. Born in 1932. Has lived off the reservation for a number of years. Has no farm and no cattle. Spent several years working for a Tucson nursery. During past 12 months has had steady work at the Ajo mines.

Case No. 6. Male. Born in 1915. Worked for the Bureau of Indian Affairs for many years. Moved to California two years ago. During past 12 months has been employed as a plumber in California.

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484 Case No. 7. Male. Born in 1937. Has no farm land. Owns no cattle. Lives on reservation. No work experience. During past 12 months has been unemployed, living with parents.

Case No. 8. Female. Born in 1927. Father had fields, no longer used. No cattle. Worked about three months each year picking cotton, formerly received Aid to Dependent Children to take care of brothers and sisters. Now all work as cotton pickers. During past 12 months spent nine months unemployed on reservation, three months picking cotton off reservation.

Case No. 9. Female. Born in 1937. Joined WAC after leaving school. Married and living in Texas last 12 months.

Case No. 10. Female. Born in 1905. Grew up on reservation farm, father had livestock. Moved to Tucson after divorce and worked as cleaning woman and as cotton picker. During past 12 months has had steady common labor work for Tucson institution.

Case No. 11. Female. Born in 1935. Family had no fields, no cattle. Left Reservation in 1942. Attended school in Tucson and Phoenix. During last 12 months has been a University student.

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128 Table 17 establishes the size of the Papago labor force and compares this with the group outside the labor force. Contrary to usual practice we have placed the unemployed outside the labor force since we listed as "unemployed" only those people who had little or no income during the twelve months period preceding our interview. In the vast majority of cases they have either taken themselves out of the labor force or are in fact unemployable. Individuals with unearned
[434] income are usually also unemployed. The relatively small sums of money earned from basket making, wood chopping, and from the sale of a few head of livestock have been disregarded in our analysis. Individuals with such incomes of course, are to be found inside and outside the labor force.

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434 Agriculture on the reservation is predominantly a matter of self-employment and only a few families (variously estimated at from 20 to 30) gain their entire living from reservation farming and stock raising. The remaining families -- approximately 220 -- supplement their income through seasonal or temporary wage work. These are the individuals whose principal income is from reservation agriculture. Another group live on the reservation, have small farms or livestock,

but earn their principal income from off reservation wage work. A third group of small cattle owners live permanently off the reservation and leave their cattle in the care of relatives or employ someone to look after them.

Table 17. Papago Administrative Population. Labor Force Compared With Those Outside the Labor Force. Individuals 19 years and Over, 1959.

			MALE		FEMALE	
	Total	%	Number	%	Number	%
LABOR FORCE	2,535**	46.7	1,792	66.6	743	27.1
Agricultural	1,409	25.9	1,104	41.0	303	11.1
Non-Agricultural	1,126	20.7	688	25.6	438	16.0
OUTSIDE THE LABOR FORCE	1,905	35.1	407	15.1	1,498	54.7
Housewives	1,094	20.1	-	0.0	1,094*	40.0
Unearned Income	390	7.2	184	6.8	206	7.5
Unemployed	254	4.7	123	4.6	131	4.8
Students	167	3.1	100	3.7	67	2.4
EMPLOYMENT UNKNOWN	990	18.2	493	18.3	497	18.2
Total Population, 19 Years and Over	5,430	-	2,692	-	2,738	-

* An unknown number of housewives earn some income from seasonal farm work.
** An additional 47 men and two women were in the armed forces.

The 990 individuals for whom we have no data on employment are distributed by residence as follows: On reservation, 270; off the reservations in Arizona, 348; outside Arizona, 149; unknown residence, 323.

A more detailed breakdown of the labor force by type of employment and place of employment is given in Table 18, which provides most of the facts upon which an analysis of Papago manpower resources must be based. The table attempts to do three things: separate the labor force by place of employment, by agricultural and non-agricultural employment, and by level of skill.

[See table on p. 102 -- Analyst]

162 (1) On reservation, 461 (18.2%), on and off reservation, 335 (13.2%),
● 163 and off reservation, 1,739 (68.6%).

(2) Agricultural employment, 1,409 (55.6%), non-agricultural employment, 1,015 (40.0%), and mixed employment, 111 (4.4%).

(3) Skilled and semi-skilled workers, 248* (10.0%), and unskilled 2,287 (90.0%).

As was noted above, (Table 16, Page 94) about one-half of the Papagos in our records for whom we have residence data make their usual home on the [139] reservation. The data above show that 18% of the labor force earn their principal income from on-reservation agriculture and wage work and an additional 13% earn their principal income from both on and off reservation employment. The remaining group (close to 20%) usually live on the reservation but earn their principal income off the reservation.

163 We could not make a satisfactory distinction between the skilled and
128 semi-skilled workers. In addition, we have almost surely placed some semi-skilled [115] workers in our unskilled categories. Most of our information is from neighbors or relatives of the people involved who knew that a person was employed by a construction firm or in an aircraft factory, for example, but had no knowledge of the type of work performed. In other cases, individuals were variously employed at skilled and semi-skilled work and other individuals were variously employed at semi-skilled and unskilled work. Informants gave us, in most cases, complete data on these multi-employed individuals but there is still a subjective element in both the information and the coding.

162 Approximately ten percent of the Papago labor force is engaged in
163 skilled and semi-skilled employment. These are the farm equipment operators,

[text continues on p. 103]

*An estimated 30 individuals engaged in reservation stock raising and irrigated farming should perhaps be counted as semi-skilled or skilled. We did not make the distinction at the time and so the table shows a total of 230 unskilled workers in this category.

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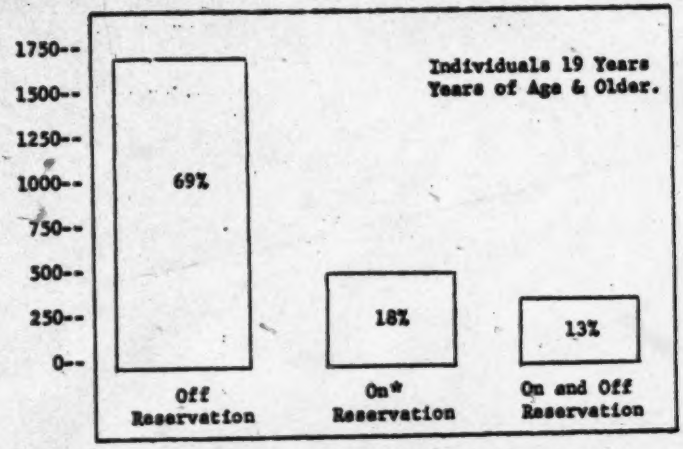
Chart 1. WHERE PAPAGOS WORK



* A high percentage of reservation farmers and stockmen leave the reservation for temporary and seasonal work.

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Chart 2. THE PAPAGO LABOR FORCE COMPARED WITH THOSE OUTSIDE THE LABOR FORCE.

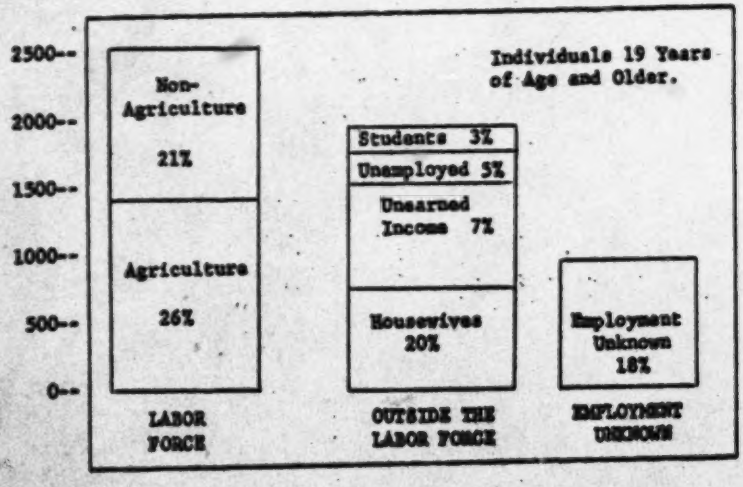

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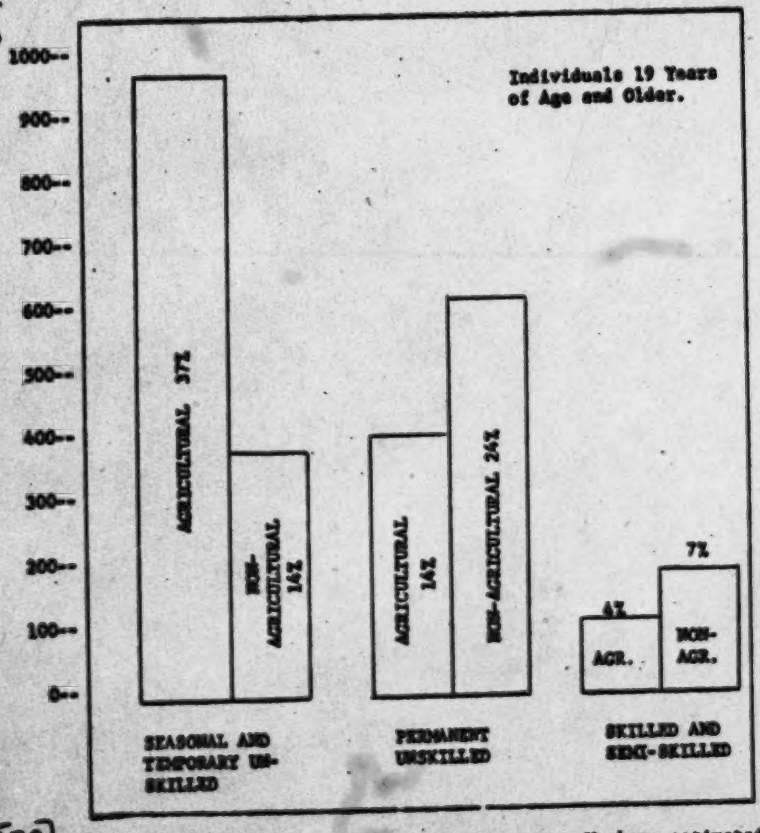
Chart 3. TYPES OF PAPAGO EMPLOYMENT *



[128]

* Data for part of this chart are estimates. We have estimated a total of 30 skilled and semi-skilled agricultural workers on the reservation and a total of 351 temporary non-agricultural workers as follows: 111 who have mixed employment and 240 who are considered temporary in our domestic and service category.

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Table 18. Papago Administrative Population Labor Force by Place and Type of Employment. Individuals 19 Years of Age and Over, 1959.

Type and Place of Employment	Total	%	MALE Number	%	FEMALE Number	%
ON RESERVATION						
Agricultural	259	10.2	258	14.4	1*	4.0
Non-Agricultural						
Skilled & Semi-Skilled	102	4.0	51	2.8	51	6.9
Unskilled	66	2.6	49	2.7	17	2.3
Mixed Employ. Unskilled	34	1.3	30	1.7	4*	4.0
ON AND OFF RESERVATION						
Agricultural Unskilled	294	11.6	283	15.8	11	1.5
Mixed Employ. Unskilled	41	1.6	32	1.8	9	1.2
OFF RESERVATION						
Agricultural	856	33.8	563	31.4	293	39.4
Skilled Permanent	69	2.7	69	3.9	0	0.0
Unskilled Permanent	365	14.4	360	20.1	5	4.0
Unskilled Seasonal	422	16.6	134	7.5	288	38.8
Non-Agricultural	847	33.4	497	27.7	350	47.1
Skilled and Semi-Skilled	77	3.0	55	3.1	22	3.0
Clerical	16	4.0	7	4.0	9	1.2
Manufacturing	13	4.0	10	4.0	3	4.0
Construction	13	4.0	13	4.0	0	0.0
Other	35	1.4	25	1.4	10	1.3
Unskilled	770	30.4	442	24.7	328	44.1
Manufacturing	57	2.2	49	2.7	8	1.1
Mining	166	6.5	166	9.3	0	0.0
Construction	52	20.5	52	2.9	0	0.0
Domestic-Service	483	19.1	165	9.2	318	42.8
Other	12	4.0	10	4.0	2	4.0
Mixed Employ. Unskilled	36	1.4	29	1.6	7	4.0
TOTAL LABOR FORCE	2535	- -	1792	70.7	743	29.3

[128]

* Married women living on the reservation were reported as "housewives" by our informants. We did not secure information on the number who own cattle or who must have accompanied their husbands off the reservation and participated with them in seasonal farmwork, especially cotton picking.

bricklayers, nurses, secretaries, clerks, typists, truck drivers and the like. About 41 percent of the skilled and semi-skilled workers, excluding the self-employed, work on the reservation mostly for the federal agencies and the tribe. Papago Indians, provided they have equal skill, are given employment preference for reservation jobs and it is obvious that they take advantage of this opportunity. Experience thus gained, is, of course, of great advantage to the individual should he desire to seek employment off the reservation.

In the process of Papago economic adjustment this group of skilled and semi-skilled workers are of special importance. These are the individuals who are up-grading their employment position; who have moved from routine clerical jobs to secretarial jobs, from cotton picking to tractor driving, and from common labor to an assembly line. Their children, in most cases, are learning English at home, acquiring a better education than the average and, in the end, they will constitute a large enough group of trained and educated Papagos to assume a responsible position in the development of both natural and human resources on the reservations.

From the point of view of understanding the employment picture, however, the problem of seasonal and temporary employment must be dealt with. We account for seasonal and temporary employment as follows:

Individuals with mixed employment	111
Unskilled agricultural workers on and off the reservations	294
Unskilled seasonal agricultural workers off the reservations	422
Self-employed farmers and stock raisers on the reservations who rely on supplementary wage work	239*
Off reservation wage workers in domestic and service employment. Temporary workers estimated at	240**

*Thirty of the 239 reservation agricultural workers are estimated to be employed full time.

**This group of 240 is derived from the 483 categorized as off-reservation "domestic and service" workers (See Table 18).

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Males Compared With Females. There are 1094 more men than women in the Papago labor force and this, of course, is accounted for by the 1094 women who are housewives. The relative distribution of women and men as between skilled and unskilled work is about the same. It is somewhat surprising, however, to find that in actual numbers there are as many skilled and semi-skilled jobs for women on the reservation as there are for men. Preferential employment of Indians on reservations obviously works to the very decided advantage of Papago women where 51 have found skilled and semi-skilled jobs as compared with only 22 in similar capacities off the reservation (see Table 18).

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As might be expected, proportionately more men than women earn their principal income from agricultural employment; 66% compared with 43%. The difference is to be found in the relatively large number of Papago women engaged in domestic service, a total of 318; about 43% of all working women.

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The Reservation Labor Force. Statistics reported in Tables 16 and 18 show that 50% of the Papagos live on the reservation most of the time but that only slightly more than 31% earn part or all of their living there. About 80% of the reservation workers are in agriculture but it is at this point that our assignment of individuals to categories indicating "major" source of income may be misleading. The 80% of Papago workers who are in agriculture earn their living, with few exceptions, from a combination of reservation and off reservation income, where as the 20% of reservation workers who have non-agricultural employment earn practically their entire income from these jobs. These are the "well to do" Papagos who work for the federal government and the tribe.

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A comparison of on and off reservation workers with those who are not in the labor force is also interesting. About 48% of the total population 19 years of age or over is in the labor force.

When the on reservation adults are separated from the off reservation adults, however, it is found that 42% of those on the reservation are in the labor

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Table 19. Papago Administrative Population by Employment and Level of Education. Individuals 19 and Over, 1959.

Type of Employment	No Education	1 to 4 yrs.	5 to 8 yrs.	9 to 12 yrs.	College	Vocational	TOTAL	No Data
ON RESERVATION								
Agriculture	44	73	91	44	2	0	254	5
Non-Agri. Wage Work	5	18	62	76	3	4	168	0
Other	11	6	10	4	0	0	31	3
Housewives	101	142	216	89	0	0	548	13
Unearned Income	152	82	94	18	0	0	346	12
Unemployed	29	36	63	43	0	1	172	2
ON AND OFF RESERVATION								
Agri. on, Seasonal Agri. Wage Work off	66	88	118	20	0	0	292	2
Other	1	10	24	6	0	0	41	0
OFF RESERVATION								
Agri. Wage Work								
Seasonal	88	136	141	50	0	0	415	7
Permanent	43	101	219	59	3	0	425	9
Non-Agri. Wage Work								
Unskilled	21	79	380	298	6	5	789	17
Skilled	1	4	.8	43	10	5	73	4
Housewives	30	83	219	171	4	2	509	24
Unearned Income	11	3	10	8	0	0	32	0
Students	0	8	24	114	7	11	164	3
Unemployed	7	18	30	21	0	0	76	4
TOTAL	610	887	1709	1046	35	28	4335	105
Unknown Employment	8	23	35	117	10	5	218	772

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Table 20. The Papago Administrative Population Percentage of Individuals at Each Level of Education by Type of Employment. 19 Years and over, 1939.

Type of Employment	No Education	1 to 4 yrs.	5 to 8 yrs.	9 to 12 yrs.	College	Vocational
ON RESERVATION	%	%	%	%	%	%
Agriculture	17.3	28.7	35.8	17.3	0.7	0
Non. Agri. Wage Work	3.0	10.7	36.9	45.2	1.8	2.4
Other	35.5	19.3	32.3	13.0	0	0
Housewives	18.4	25.9	39.4	16.2	0	0
Unearned Income	43.9	23.7	27.2	5.2	0	0
Unemployed	16.9	20.9	36.6	25.0	0	0.6
ON AND OFF RESERVATION						
Agri. on, Seasonal Agri. Wage Work off	22.6	30.1	40.4	6.8	0	0
Other	2.4	24.4	38.6	14.6	0	0
OFF RESERVATION						
Agri. Wage Work						
Seasonal	21.2	32.8	34.0	12.0	0	0
Permanent	10.1	23.8	51.5	13.9	0.7	0
Non-Agri. Wage Work						
Unskilled	2.7	10.0	48.2	37.8	0.8	0.6
Skilled	1.4	5.5	11.0	61.6	13.7	6.8
Housewives	5.9	16.3	43.0	33.6	0.8	0.4
Unearned Income	34.4	9.4	31.2	25.0	0	0
Students	0	4.9	14.6	69.6	4.3	6.7
Unemployed	9.2	23.7	39.5	27.6	0	0
TOTAL	14.1	20.3	39.4	24.6	0.8	0.6

162 464 868 the farm or range, but this is far different from the training received when young people work for strangers. The 14% that originated off the reservation reflect this, and other advantages in the nature of the jobs they hold (see table 23). [463] They have 18% of the permanent agricultural jobs, 19% of unskilled wage work and 37% of the skilled wage work.

162 463 464 Table 23. Papago Administrative Population. Comparison of Types of Employment by Origin. Individuals 19 and Over, 1939.

Types of Employment	Origin On Reservation		Origin Off Reservation	
	Number	Percent	Number	Percent
ON RESERVATION				
Agricultural	273	96%	11	4%
Non-Agricultural Wage Work	152	91	15	9
Other	32	94	2	6
Housewives	511	93	37	7
Unearned Income	306	95	15	5
Unemployed	171	98	3	2
ON AND OFF RESERVATION				
Agriculture on, Seasonal Agric. Wage Work off	287	98	7	2
Other	41	100	0	
OFF RESERVATION				
Agricultural Wage Work				
Seasonal	381	92	33	8
Permanent	353	82	76	18
Non-Agricultural Wage Work				
Unskilled	645	81	151	19
Skilled	47	63	28	37
Housewives	376	72	150	28
Unearned Income	21	72	9	28
Students	117	71	48	29
Unemployed	57	71	23	29
TOTAL	3770	86	607	14

Total with origin unknown 64. Total with employment unknown 495.
Total with both origin and employment unknown 395.

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Papago Agricultural Workers in Pima County. Agricultural work off the reservation is of such great importance to Papago family economics that we felt it necessary to make a special study of this subject. The project was planned and executed in 1961 by Mr. Harland Padfield, a Department of Anthropology graduate student who is an authority on this subject. Unfortunately, the study was limited to Pima County since funds did not permit the extension of the research to other sections of southern Arizona.

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Mr. Padfield was able to establish two points: (1) Papago Indians in farm work are shifting to other jobs than seasonal cotton picking and are not being displaced because of mechanization, (2) they account for 30 percent of the total man-hour input and 27 percent of the total wage input on Pima County farms and receive total annual earnings of about $630,000. The evidence, although not conclusive, also indicates that there is a steady increase in the training and use of Papagos in the operation of farm machinery and in other skilled jobs.

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The author concludes his report with the following words: "These data should make it patently clear that with the Papago Reservation virtually surrounded by 370,000 acres of farm land needing a labor force in excess of 10,000 workers and a labor expenditure probably in excess of $13,000,000 annually, programs and policies aimed at the problem of Papago economics cannot ignore farm labor; neither can programs and policies aimed at the problem of farm labor ignore the Papago Indians."

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Padfield's work was based upon an area sample which permitted him to generalize from detailed interviews with 21 of the 119 farm operators in Pima County with a total acreage of 29,796 out of 66,875. Data thus collected was supplemented through interviews with crew leaders who recruited the seasonal workers, mostly cotton pickers, for the farms drawn in the sample.

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464 Changes in Papago Job Participation. With reference to Table 24, Padfield points out that Papago participation in Pima County farm work is roughly equal in all categories--107,004 man-hours in "direct permanent", 111,530 man-hours in "direct temporary", and 116,220 man-hours in "indirect" (i.e., seasonal labor contracted by crew leaders). The following discussion of this point and other data developed by Mr. Padfield are taken directly from his final report.

From all accounts traditional Papago off-reservation work in the past has been seasonal work, chiefly in cotton (Dobyns, 1950). In 1961, Papagos supplied not only a significant (one-third) proportion of all farm work in the county, but two-thirds of this large proportion of work in 1961 was not seasonal--admittedly not altogether permanent, but not seasonal. Thus either these earlier [114] impressions are erroneous or there has been a marked trend toward more permanent and/or more highly skilled farm jobs in the past ten years.

The growers themselves tend to support this inference in that over half of the 21 comprising the sample said that they were using Indians in more skilled jobs, with only one grower saying that he was using them in less skilled jobs.

The individual employment records of 43 Papagos also tend to support this inference in that 32 percent of them show an advancement in job skills with the rest showing no change either way.

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463 The Status of Hand Labor. Our data (Table 24) indicate that seasonal
464 hand labor still accounts for one-third of all the man-hours of farm work in Pima
[114] County. This leads us to question the assumption that agricultural hand labor will shortly be a thing of the past, and that Indians depending on income from hand labor are ipso facto displaced workers. This phenomenon is far more complicated than that.

463 In the first place, seasonal hand work is by no means all the hand labo
464 expended on farms. Much of all crop production activity is still hand--irrigatin

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ditching, weeding, etc. As workers who have traditionally participated in these activities move up or out to other jobs, these activities absorb many workers who are being replaced by harvesting machines. In addition, there is a continuing need for hand picking of cotton and a local labor supply must be maintained since out-of-state migrants have had little incentive to move into southern Arizona where the large scale adoption of cotton-picking machines has cut employment opportunities. Major dependence upon machines, as a matter of fact, can back-fire on growers, particularly when caught in unseasonable torrential rains--as in December, 1959--which rendered picking machines useless. Growers also recognize that hand picking of cotton can often be to their advantage. With reference to cotton thinning, some of the largest farms were going back to hand labor in 1962.

In summary it may be said that the margin of benefit at least for many growers in many circumstances is still sufficient to dispel the notion that machines are going to replace hand labor or even seasonal hand labor in the foreseeable future.

Papagos are getting 34 percent of the seasonal hand work on Pima County farms. Proximity of farms in this county to the reservation is largely responsible for these favorable ratios; nevertheless there are other factors operating which are putting Indians in a generally more favorable position for these seasonal work activities. As mentioned above, the massive decline in the out-of-state migrant stream which is traceable to mechanization has placed greater dependence upon local workers for the jobs that remain.

Another result of mechanization which may have a counter result in favor of the Indian worker is the wholesale abandonment of the farmer-owned housing system for seasonal workers, and the subsequent shifting of recruiting, superintending, and paymastering services to the crew leader. The extent of crew leaders' use of Indians, as well as crew leaders' ethnic preferences tend to

463 support this inference. Seventeen crew leaders were interviewed. Only one
464 reported using Indians less frequently than formerly. All the rest have either observed no trend, are using Indians the same or are using them more. Five of the 17 reporting said they are using them more.

464 There are, of course, certain obvious factors inherent in this kind of
197 work pattern which are compatible to general Indian and Papago Indian participation.
829 The worker can enter and withdraw at will without obligating himself to become integrated into Anglo society. The family and village pattern can remain intact. Income tax and social security, in fact, the whole Anglo pay check complex is in most cases avoided. Language barriers are made insignificant, and the standardized relationships within the extended family are most usefully employed to get work through word of mouth communications. The upshot is that this kind of work, though not as rewarding financially as other kinds of work, is least disruptive of folk patterns.

464 Conversely, the advantages of Indians to crew leaders are quite simply that, relative to other domestic seasonal workers, they are dependable, available, and exploitable.

Direct Temporary Farm Jobs. The high utilization (67%) of Papagos as temporary farm workers (as opposed to seasonal) is of significance in two
[461] directions. It indicates, first of all, that Papagos are willing to take this kind of work and that farm managers seeking temporary employees depend upon the
[868] Papago labor pool. More significant for the Papagos is the opportunity they thus gain for training in all types of farm work, including the operation of farm
[197] machinery. Potential benefits, in fact, carry beyond the limits of farm work since the nature of the employment (as contrasted with seasonal work under a crew leader) involves direct and intimate experience with an Anglo employer and all the
463 complexities of wage work employment. The Papagos are obviously well started in

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the process of job upgrading which has moved other ethnic groups from seasonal farm work to temporary and permanent farm work to urban industrial employment.

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Papago Welfare Programs. There is little or no evidence that Papago Indians have taken undue advantage of welfare programs. On the contrary, there is much evidence that state and federal welfare payments make the difference between complete and painful poverty and a bearable standard of living for many reservation families. This last statement holds particularly true for the old people--close to 60% of all welfare payments go to individuals over 65--who are especially vulnerable under modern conditions. [888]

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To learn more about this problem, and its place in reservation family economics, Mr. Richard Jones, graduate research assistant in the Bureau of Ethnic Research, was assigned the task of gathering and analysing necessary data. His work was thorough, covering all phases of welfare administration, welfare costs, and the effect of welfare on Indian families. A summary of his findings is given below.

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Information gathered from the Indians themselves very obviously gives an undercount of welfare cases. We report a total of 390 individuals (on and off reservation) who received unearned income in 1959. The official number of cases, reported by Jones for reservation residents alone for 1959 was 448. We report a total of 206 individuals over the age of 65 receiving unearned income while Jones reports 266 cases of Old Age Assistance (39%).

It is not likely that Papagos would deliberately withhold information on welfare. The difference is probably to be found in the welfare cases among the 990 on whom we have no employment data, and in the reporting of individuals receiving welfare as "unemployed". In any event, we were forced to depend upon informants since welfare information, which identifies the recipient, is confidential and so not available to us.

and receive income from many sources. Records, of course, are not kept and Papago memory of such activities is vague.

There are three sources of income for reservation families where the numbers of individuals involved and the amounts received can be calculated with some degree of reliability: (1) reservation farming and stock raising (2) reservation wage work and (3) unearned income. For the other three principal categories (4) non-agricultural self employment (wood chopping, home crafts, etc.) (5) wage work on and off the reservations and (6) wage work off the reservations, we know the approximate numbers of adults involved, the approximate amount of hourly earnings, but we know nothing with respect to the numbers of hours of employment during the year.

Gross Papago family income from irrigated farming and stock raising on the main reservation and at San Xavier has been estimated at $754,132 (see Chapter III). To this must be added the value of subsistence crops grown by Papagos on flood water farms. The sum has been very generously estimated at $5,000.

No one has made a study of the cost of growing crops or raising livestock on the reservations. The major cost, however, is labor which may be counted as income. Other costs are probably in the neighborhood of $100,000 which gives us an estimate of about $650,000 as the annual Papago family earnings from reservation agriculture.

Reservation income from wage work has been calculated with fair precision for fiscal year 1963. The total is $809,264 (see Table 28).

Income from welfare (see Table 27) for fiscal year 1962 is estimated at $473,796. The total for the first three categories of income is as follows:

1.	Reservation farming and stock raising	$650,000
2.	Reservation wage work	809,264
3.	Welfare income	473,796
	Total	$1,933,060

By referring to Table 18 (page 102) the individuals who received income from these sources in 1939 may be identified by categories. It may be assumed that the numbers of individuals involved, as the amount of income, from farming, and stock raising have remained about the same. The number of permanent and temporary wage workers has gone up from 202 to 249 and the number of welfare clients has increased from 465 to about 350. 162 434 463

The numbers of individuals involved in the above categories in 1962 are thus: reservation farming and stock raising 239, reservation wage work 249 and welfare income 350.

We do not know the amount of agricultural income received by the 239 adults whose principal income was from this source since large numbers of cattle are owned by Papagos who work off the reservation. Neither do we know the amount earned by these 239 individuals from seasonal and temporary wage work. Perhaps the two about balance each other. Taking this as our assumption we have the following result.

Average annual income of adults engaged in stock raising, farming, and some temporary wage work is calculated at $2509 (239/$650,000). Average annual income of all reservation wage workers is $3250 (249/$809,264). Average annual income of "permanent" reservation wage workers is $3742 (181/$677,471). Average annual income of welfare recipients (individuals receiving payment and not including dependents) is $861 (350/$473,796). 434 463

We have thus accounted for 1038 of the 2396 individuals 19 years of age and older who make their usual home on the three Papago reservations. The remaining 1358 are distributed as follows: 735 are housewives or unemployed, 335 are part time farmers and stock raisers on the reservation and part time wage workers off the reservations and 468 secure all their income from seasonal and temporary wage work off the reservations. We know what these people do, but we are unable to calculate their income since there is no way of determining the average number of days or weeks they are actually employed during the year. 162 463 [128 [434

of days or weeks they are actually employed during the year. Average annual earnings for this group of 803 individuals would probably be located somewhere between the average income of welfare recipients ($861) and the individuals engaged principally in reservation farming and stock raising ($2509).

Only a sample survey, now made possible by the existence of a Papago population register, could determine more precisely the annual income of Papago adults, or Papago families. The answer, whatever it might be, would add little to our knowledge. We know the nature of Papago employment, we know the approximate numbers of individuals in each of the categories of employment, and we know the magnitude of the problems of unemployment, underemployment, and dependence upon welfare. To know the dimensions of a problem, however, is only the beginning. This must be followed by an examination of the facts which may lead to a solution. A great deal, but by no means all, of the necessary information is contained in this report. The task of analysis, however, must be deferred at this time except for certain more obvious considerations which are treated below.

Conclusion. The outstanding fact, and this runs as a thread through all our statistics, is that the Papago Indians are solving their own problems. Starting from very nearly "zero" in 1917, when the Sells Reservation was established, the Papagos have shown great skill and persistence in finding ways to remain self-supporting in the face of meager resources and a rapidly changing world around them. They have done more than this. A substantial number--more than 300--Papago boys and girls have secured an education and have moved into productive employment as skilled and semi-skilled workers. Another substantial group, about 38% of all adults, have found permanent and near permanent employment on and off the reservation in spite of language, cultural, and educational handicaps.

The trend of events is clearly discernible in our material. Papago families remain on the reservations, taking advantage of all possible income

opportunities until these are exhausted. At this point they turn to outside employment. A full half of the members of the tribe have made this move on a more or less permanent basis and another thirty percent make the move on a seasonal or temporary basis. This is the direction of Papago adjustment and its most encouraging aspect is the fact that it is a case of self-adjustment, uninfluenced in any important respect by forces outside the interests and goals of the Indians themselves. This is not to say that they like it. This study, and every other study of the Papagos, has shown that they accept a removal from their reservation villages only with greatest reluctance; partly because they prefer to live in a familiar environment and near their friends and kinsmen, and partly because they do not have the background in education and experience which would assist them in facing the many problems of life in a strange environment. Neither do they have the background in education and experience which would permit the more intensive development of reservation income opportunities, thus permitting larger numbers of Indians to remain on the reservations and at the same time enjoy a more acceptable standard of living.

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There are many factors involved in the solution of the economic problems which have been presented in this report. We have presented data on the level of formal education and the range of work experience. The generation of adults now seeking employment did not attend school at all, or were in school only a few years when they were children. Their origin is predominantly from reservation villages and their work experience has been almost exclusively in agricultural or common labor employment.

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These are the outstanding handicaps with which they must contend, and they are the handicaps, even though less severe, with which their children will have to contend.

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The situation is one in which necessary conditions for improvement can be clearly defined without, at the moment, being diverted by the host of

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psychological base in cooperative family life, with roots in the traditional homeland to counterbalance the wage work cycle is of vital importance to Papago well-being as a firm pivot around which the individual may build his new adjustment to rapidly changing modern conditions. As such, the new dual orientation may well serve as the focus of administrative planning.[1]

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However, an increasing proportion of the Desert People who work on cotton farms no longer make an annual migration from reservation home to labor camp. They have moved from the reserves more or less permanently, consciously recognizing themselves as permanent farm workers. Mostly they are irrigators, but do general farm work, and include tractor drivers and other skilled workmen. They contribute some labor to harvesting cotton, since men pick when regular jobs are slack, and wives and children pick off and on. These

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people made up over a fifth of the Papagos interviewed in the course of this study,[2] indicating that the number of Papagos living on farms outside the reserves all the time is relatively large, perhaps as many as

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800.[3] They occupy an important place in the labor

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picture and economy of the cotton-growing valleys. Their ability to support themselves by wage labor is very important to the economy of the reserves, removing part of the population overload that cannot be supported adequately by the poor lands of the reserves.

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This form of adjustment to a radically changed economy has not progressed to its ultimate, however. In South Africa, where European settlers moved in and confined the natives to similar reserves, about 35% of the native population lives permanently on European owned farms.[4] If 800 Papagos live on southern

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Arizona farms all the time, only about 10% of the population is living on European owned farms outside the reserves. (Perhaps as many live in southern Arizona cities.)

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[1] Thompson, 1951, p. 71.
[2] 12 of 53 families, or 22.6%.
[3] About 2,000 Papagos picked cotton in 1950, and about 4,500 lived in labor camps. So approximately 200 Papago men may be working as year-round farm laboerers, and their wives add another 200 part-time cotton pickers. Their families are somewhat smaller than those of pickers migrating from the reserves.
[4] Hunter, 1937, p. 389.

464 484 487 494 In Pima county, at least, Papago cotton pickers seem to have become as fully mobile as any other harvest hands. Many Desert People who have moved to Tucson or live there during picking season ride trucks or buses to the fields each morning. The drivers, usually Mexican-Americans, establish regular routes from which they pick up hands, and the Indians are just individuals in a mixed crew of Anglos, Mexican-Americans and Negros. Some Papago families living in Tucson also move into labor camps on farms.

At nearby San Xavier the Desert People can choose either method of working. Those moving out to live in [463] [621] labor camps are generally irrigators and farm handy men who live away from their community most of the time, returning for religious celebrations and visits. Part-time laborers picking cotton usually take an uncomfortable ride to their jobs every day in canvas-covered flat bed trucks that usually have rough benches to sit on. At least one San Xavier man has escaped the bottom of the economic scale by hauling other Papagos to work in his truck even as other contractors.

Fewer Papagos ride to work each morning in Pinal [184] county. The proportion of the total picking force hauled from the towns each day is also much smaller than in Pima county. The trading centers do not afford the labor reservoir available in big-city Tucson, nor the [361] housing for migrant workers found in that city. So the greatest part of the harvest labor is housed in camps on cotton farms, and many of the hands hauled from the towns live in what are no more than labor camps thrown up in the trading centers.

464 361 Despite increasing importance of mobile labor that is more efficient in that it can be put to work where most needed, most cotton farmers rely still on pickers living in their own labor camps on their farms. Four-fifths of the cotton farms in Pima and Pinal counties have these camps.[1] A few farmers operated more than one labor camp in 1950--1 farm of every 9 or so has been afflicted with two camps or more.[2] Some farmers built

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[1] 26 farmers of 34 giving data, 76.5%, in Pima county had camps. 46 of 57 giving data, 80.7%, in Pinal had them.

[2] 72 farms with camps had 82, averaging 1.139 per farm.
46 farms with camps in Pima county had 50 camps.
26 farms with camps in Pinal county had 32 camps.

ECONOMIC NECESSITY

Basic reasons Papagos Work--

433 In a rural area, there are not many choices of
463 livelihood--farming, mining, lumbering, raising cattle.
657 The Papago reservations have no timber worth cutting
313 other than mesquite trees for firewood. The Papago
316 reservations are the only lands in the U. S. reserved
464 for Indians which are open to mineral entry by outsiders. Consequently mining claims are held by non-Papagos, and profits go elsewhere. The only way the Desert People can benefit from mines is by selling their labor to the owners.

241 Farming is risky for the Desert People. Only two
311 communities have irrigated lands which can be depended
433 upon for crops. The rest must resort to age-old techniques of flood farming where arroyos spread flood waters from mountains. Spots that can be farmed this way are not abundant. They are being decreased each summer as gullies wash out fields and arroyos cover them with sterile sand and gravel washed down from overgrazed and eroding slopes above. Flood farming was never more than a subsistence measure because of the size limitation on fields, and frequent crop failures from flooding out, frost, or drought. Today, there is little incentive to gamble on a subsistence farm for any Papago able to speak enough English to get a job. For
464 wage labor means a super-subsistence income, even if a
511 substandard one by Anglo lights.

241 Probably every worker on the Papago reservations
433 has noticed the steady abandonment of flood farms. A-
464 mong Papago cotton pickers with these farms, less than
221 half apparently bother to plant any crops at all nowadays.[1] Cotton picking starts just about the time fields need weeding on the reserves, and picking season hits its peak just about the time flood field crops are ready to harvest. This conflict between flood-farm growing season and wage-labor season in the cotton fields results in many Papago laborers not planting crops at all on the reserves.

433 Another factor discouraging flood farm planting is
241 that these small plots produce only subsistence crops
461 at best, even if the gamble against drought and over-

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[1] 5 families of 11 giving information had any crops at all in 1950.